

PROJECT DESCRIPTION

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THIS PROJECT INVOLVES MODIFICATION OF THE EXISTING TRAFFIC SIGNAL FOR THE INTERSECTION OF MD 650 (NEW HAMPSHIRE AVE.) AND MD 320 (PINEY BRANCH RD.) IN PRINCE GEORGE'S COUNTY, INCLUDING REPLACEMENT OF THE NORTHWEST POLE TO ACCOMMODATE WIDENING OF THE MD 320 APPROACH TO PROVIDE A TRIPLE LEFT-TURN LANE, ADDITION OF PEDESTRIAN SIGNAL HEADS FOR THE NORTH-SOUTH SIDEWALK CROSSING THE MD 320 APPROACH, AND REPLACEMENT OF EXISTING IN-GROUND LOOP DETECTORS WITH VIDEO DETECTION. MD 650 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA FOUR-PHASE, SEMI-TRAFFIC ACTUATED MODE.

THE NEW TRAFFIC CONTROLLER WILL BE CONNECTED TO THE EXISTING INTERCONNECT SYSTEM ALONG MD 650.

CONTROLLER REQUIREMENTS

THE PRESENCE AND SAMPLING DETECTION REGIONS SHALL BE MONITORED/ACTUATED WITH VIDEO-DETECTION CAMERAS. MICROLOOPS FOR ADVANCE DETECTION WILL BE REPLACED IN-KIND.

PROJECT CONTACTS

CONTACTS FOR DISTRICT 3:

MR. MAJID SHAKIB  
ASSISTANT DISTRICT ENGINEER,  
TRAFFIC  
410-513-7358

MR. WAYNE MONDY  
ASSISTANT DISTRICT ENGINEER,  
MAINTENANCE  
410-513-7304

MR. AUGIE REBISH  
UTILITIES ENGINEER  
410-513-7350

CONTACTS FOR OFFICE OF  
TRAFFIC AND SAFETY:

MR. RICHARD DAFF SR.  
CHIEF, TRAFFIC OPERATIONS  
410-787-7630

MR. ED RODENHIZER  
CHIEF, SIGNAL OPERATIONS  
410-787-7650

MR. EUGENE BAILEY  
CHIEF, SIGN OPERATIONS  
410-787-7676

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF,  
TRAFFIC OPERATIONS  
410-787-7630

MR. MIKE STOCKER  
SIGNAL SHOP WAREHOUSE  
410-787-7696

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE STATE HIGHWAY ADMINISTRATION.

CATEGORY CODE	QUANTITY	DESCRIPTION
900000	1 EA	VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS)
917017	1 EA	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET- BASE MOUNT (NEMA SIZE 6)
973023	23 SF	SHEET ALUMINUM SIGNS: 3 EACH R3-5(L) (30"x36") - MAST ARM MOUNT 1 EACH ASSOCIATED SHIELD ASSEMBLY (36"x75") - POST MOUNT

EQUIPMENT LIST 'C'

NONE

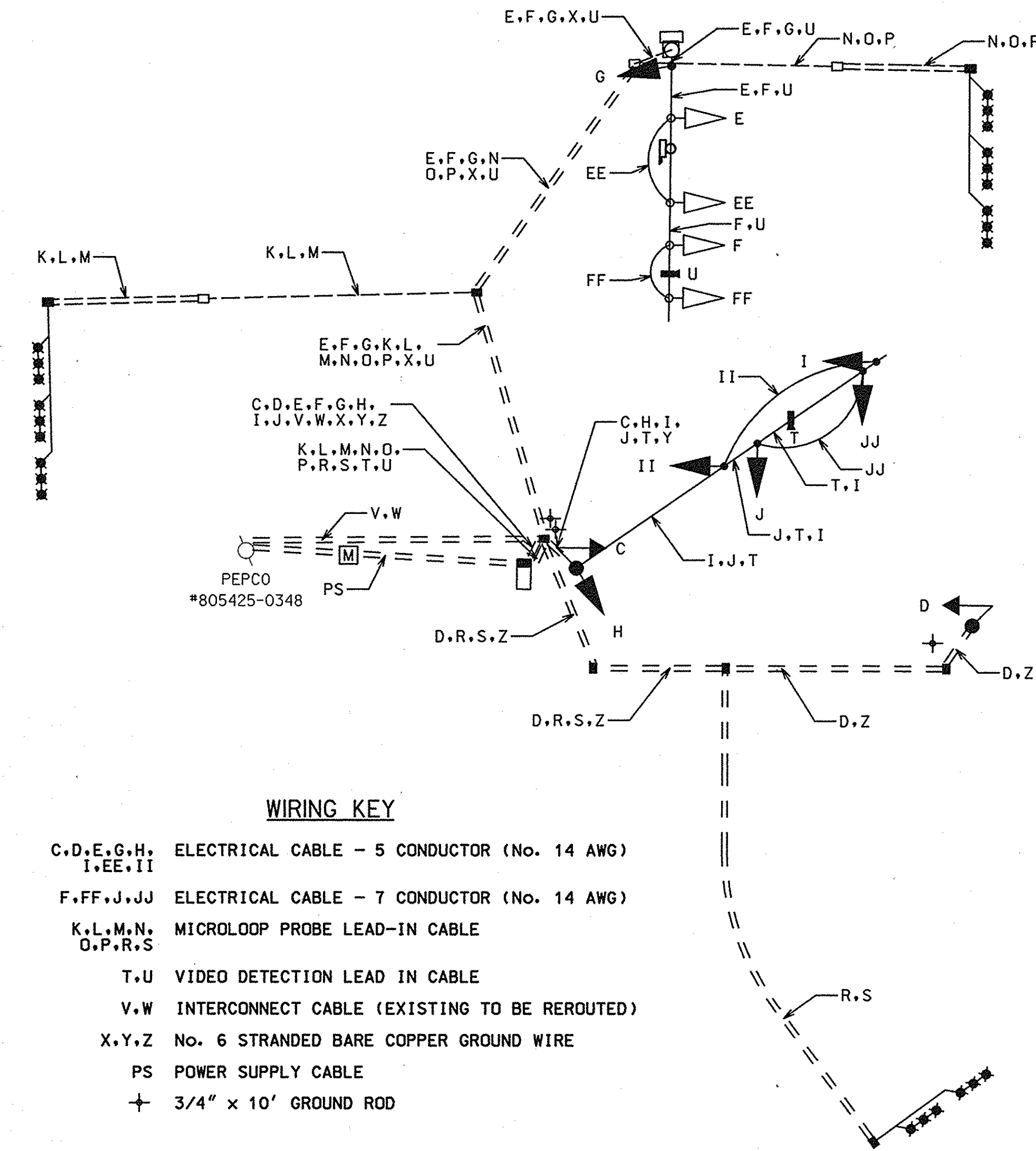
EQUIPMENT AND MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

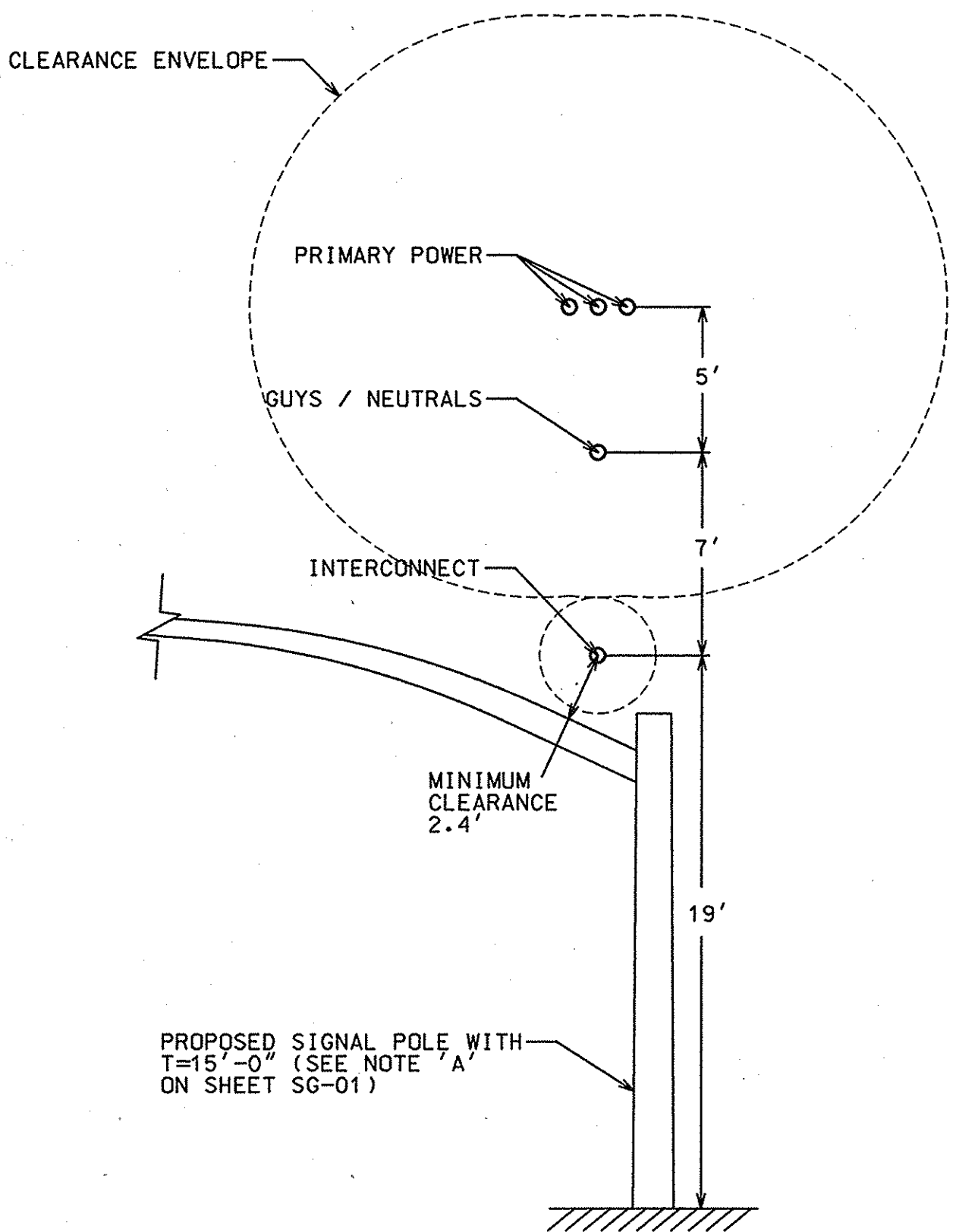
CATEGORY CODE	QUANTITY	DESCRIPTION
585412	345 LF	12" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PYMT. MARKINGS
585424	130 LF	24" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PYMT. MARKINGS
800000	1 LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
800000	2 EA	16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
801004	8 CY	CONCRETE FOR SIGNAL FOUNDATION
802145	1 EA	ADJUST EXISTING HANDHOLE
802501	255 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805018	60 LF	3" ELECTRICAL CONDUIT- GALVANIZED RISER
805050	2 EA	WEATHER HEAD, 3 INCH
805125	485 LF	2" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	170 LF	3" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	15 LF	4" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805155	185 LF	4" SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
805160	15 LF	1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
807202	1 EA	METERED SERVICE PEDESTAL
810550	5 EA	MICROLOOP PROBE, 500 FOOT LEAD-IN CABLE
810555	3 EA	MICROLOOP PROBE, 1000 FOOT LEAD-IN CABLE
811001	8 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
811002	3 EA	REMOVE ELECTRICAL HANDHOLE
813015	45 SF	INSTALL OVERHEAD SIGN
816001	2 EA	VIDEO DETECTION CAMERA
816005	2 EA	CONTROL CABLE, 250 FT, VIDEO DETECTION CAMERA TO CONTROLLER
818052	1 EA	STEEL POLE WITH SINGLE 70 FOOT MAST ARM
818004	1 EA	10 FOOT BREAKAWAY PEDESTAL POLE
837001	3 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860272	18 EA	12" VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860278	4 EA	12" PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT
860292	1 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861107	625 LF	ELECTRIC CABLE- 5 CONDUCTOR (NO. 14 AWG)
861107	295 LF	ELECTRIC CABLE- 7 CONDUCTOR (NO. 14 AWG)
862102	165 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
871202	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

WIRING DIAGRAM



UTILITY CLEARANCE DETAIL

SCALE = 1"=5'



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)
	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)
Phase 1 & 6	←G-	←G-	G	G	R	R	R	R	R	R	DW	DW
1 & 6 change	THIS PHASE MAY SKIP TO PHASE 2 & 6											
Phase 2 & 6	←R-	←R-	G	G	G	G	G	R	R	R	WK	WK
Ped. Clearance	←R-	←R-	G	G	G	G	G	R	R	R	FL/DW	FL/DW
2 & 6 change	←R-	←R-	Y	Y	Y	Y	Y	R	R	R	DW	DW
Phase 4	←R-	←R-	R	R	R	R	R	G	G	G	DW	DW
4 change	←R-	←R-	R	R	R	R	R	Y	Y	Y	DW	DW
Flashing Operation	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	BLANK	BLANK

SHA

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

MD 650 (New Hampshire Avenue) and  
MD 320 (Piney Branch Road)

REVISION F CONSULTANT



WALLACE, MONTGOMERY  
& ASSOCIATES, LLP

CIVIL AND STRUCTURAL ENGINEERS

110 West Road  
Suite 300  
Towson, Maryland 21204

SCALE 1"=20' DATE 08/29/1972 CONTRACT NO. P-343-001-385

DESIGNED BY \_\_\_\_\_ COUNTY PRINCE GEORGES  
DRAWN BY W. Mathias LOGMILE 16065002.78  
CHECKED BY \_\_\_\_\_ T.I.M.S. NO. G981  
F.A.P. NO. 08/29/1972 TOD NO. \_\_\_\_\_

DRAWING NO. TS-679F - OF SHEET NO. OF

PLOTTED: 08/29/1972  
FILE: SP1ES